From: Jennings, Lynne
Sent: Wednesday, July 31, 2019 1:16 PM
To: Cashwell, James M CERG
Cc: MORASH, MELANIE; DiLorenzo, James; Brandon, William; Jeffrey Brunelle; Jennifer Lambert
Subject: RE: Status
Attachments: Olin - Stream Gauge Proposal Review - 29July2019.pdf; Seismic alignments.wcb.7.30.19.docx

Hello James,

Attached is a memo from Bill Brandon with comments on the seismic refraction information. Nobis is also reviewing but has not completed their review. I don't have a deadline for their review but I am guessing that any comments they may have can likely be addressed in next phase of work.

Also attached is Nobis memo on the surface water stream gages. Bill Brandon has not had a chance to complete his review on this and has indicated that he will complete by Thursday, we will forward them to you on Thursday.

Thanks
Lynne

From: Cashwell, James M CERG <JMCashwell@olin.com>
Sent: Wednesday, July 31, 2019 11:31 AM
To: Jennings, Lynne <Jennings.Lynne@epa.gov>
Subject: Status

Lynne, any update on the status of the seismic and surface water memos?

James Cashwell
Director, Environmental Remediation
Olin Corporation
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SEMS Doc ID 640115

MEMORANDUM

To:	EPA
Copy To:	File 80021
From:	J. Lambert, J. Brunelle
Subject:	Olin: Proposed Steam Gauge Location Review Comments
Date:	7/29/19

Nobis Group® (Nobis) on behalf of the U.S. Environmental Protection Agency (EPA), has reviewed and generated the following comments on the proposed stream gauge locations provided in an email by Wood Environment & Infrastructure (Wood) on behalf of the Olin Corporation (Olin) for the Olin Chemical Superfund Site (Site) in Wilmington, Massachusetts (Wood, 2019).

COMMENTS

1. The proposed Maple Meadow Brook (MMBW) stream gauges are appropriately located for evaluating major inputs and outlets of the MMBW as well as for comparison to previous surface water elevation data.
2. The proposed surface water gauges north of Eames Street and at the upper South Ditch are also appropriately located.
3. Olin should install a stream gauge on the east side of the MMBW to gauge groundwater in the core of the MMBW plume. The general location of the proposed gauge, as shown on the attached figure, is along the southern edge of the Town-owned parcel and at the edge of the wetland to minimize access concerns.
4. Olin should install the proposed Lower South Ditch gauge as close to the East Ditch as practical without interfering with the potential maintenance of the railroad line.

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585 Middlesex Street
Lowell, MA 01851
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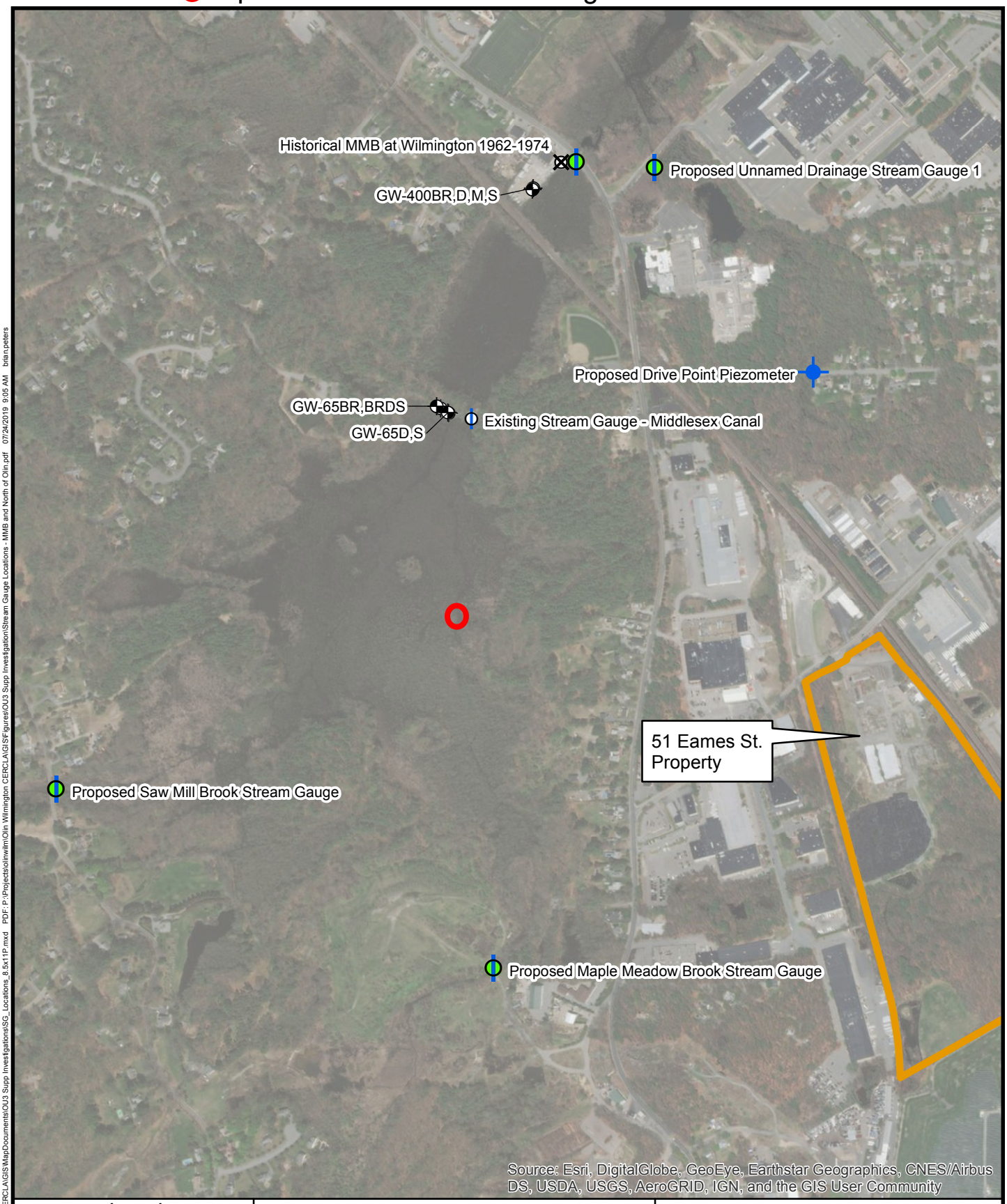
O = potential additional SW Gauge Location



Legend

- Proposed Stream Gauge
- Proposed Piezometer
- Existing Stream Gauge
- Historical Stream Gauge
- Monitoring Well
- Property Boundary

Wood
Environment & Infrastructure Solutions
271 Mill Road
Chelmsford, MA 01824

N

0 400 800 1,600 Feet

Stream Gauge Locations – MMB and North of Olin

Olin Chemical Superfund Site
Wilmington, Massachusetts

Prepared/Date: BRP 07/24/19 | Checked/Date: LB 07/24/19

Document: P:\Projects\olinwilm\Olin Wilmington CERCLA\GIS\MapDocuments\OU3 Supp Investigations\SG_Locations_8.5x11P.mxd PDF: P:\Projects\olinwilm\Olin Wilmington CERCLA\GIS\Figures\OU3 Supp Investigation\Stream Gauge Locations - MMB and North of Olin.pdf 07/24/2019 9:05 AM brian.peters

MEMORANDUM

To: Melanie Morash, RPM

Cc: Olin Team

From: W. Brandon, Hydrogeologist

Date: July 30, 2019

Subject: Review of Olin's revisions to EPA Geophysical Alignments proposed during meeting of June 26, 2019

In a memorandum dated July 18th, 2019 transmitted via email on July 19th, Andy Davis (Geomega) presented counter proposals for the geophysical survey alignments proposed by EPA during the meeting of June 26, 2019. EPA mostly concurs with these recommendations, except with minor caveats discussed below.

1. *Main Street DAPL Pool Area*: Proposed Modifications accepted.
2. *Containment Area*: Concur with Olin's proposal to postpone collection of 4 peripheral seismic lines in the exterior peripheral region to the CA pending review of data collected from alignments intersecting the CA walls. EPA concurs that this data will inform a decision on the value of the peripheral lines at a future date.
3. *North of Olin*: Proposed Modifications accepted.
4. *Jewell Drive Area*: Concur
5. *Maple Meadow Brook*: EPA concurs with Olin's approach. Path forward will be to evaluate the effectiveness of the AEM method, and quality and coverage of data collected to determine whether supplementary efforts/methods may be needed at a future date.
6. *Area East and Southeast of Olin*: It appears that Olin intends to augment existing seismic reflection data in some places here by extending the previous alignments. EPA is not opposed to this generally, if the existing seismic reflection data is of high quality, adequate resolution, and is compatible with the new data/collection approach. Please supply existing data/seismographs for EPA review. Also, please clarify how the data sets will be "spliced" to form a unified data set which can be interpreted as such? Will this involve combining the old and new digital data and remodeling the data set as a whole? The following comments address the specific alignments Olin discusses in the July 18th memo.

    - *USEPA Line A*: In lieu of USEPA's proposed Line A, Olin's proposal is to augment existing *line α* with new line 4 to extend the coverage westward. New line 3 will provide additional coverage west of the railroad tracks. Assuming the general issues

discussed above are addresses, this proposal is acceptable. However, please add another segment of similar length at Line 4 to augment the coverage to the east of existing *line α.*

- *USEPA Line B:* In lieu of USEPA's proposed Line B, Olin's proposal is to augment existing *line β* with new line 1 to extend the coverage southward to connect with proposed line 3. This is acceptable, but please consider extending line 1 to the south along the same azimuth as *line β* unless there is a compelling reason for the proposed line 1 alignment.
- *USEPA Line C*; Olin's proposed line 2 duplicates EPA's proposal (line C) and adds several hundred additional feet of coverage to the north to connect with GW-4D. EPA concurs with Olin's proposal.
- *USEPA Line D*: Olin's alternative to USEPA line D is as follows, "*Line D parallels existing seismic lines γ and δ. We propose to extend δ to the south, intersecting GW-401D at its terminus. We propose to extend γ to the north along Woburn Street (in lieu of USEPA Line F) to evaluate the bedrock trough to the east of the scrapyard*." We agree with this proposal with one caveat: *an additional 200 feet or more of additional coverage is needed to "splice" and connect seismic lines γ and δ.* This is a critical area, and this gap in coverage should be eliminated.
- *USEPA Line E*: US EPA's proposed Line E parallels Olin-proposed Line 6 which is located to take advantage of GW-401D and GW-414BR, which intersect this line, and thus provide data quality control points. Line 6 also provides several hundred feet of additional coverage to the northeast. EPA concurs with Olin's proposal.
- *USEPA Line F*: Elimination of proposed line F is accepted. As Olin notes, "Line F runs through the former Whitney Barrel property which is under redevelopment and consequently inaccessible."